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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,435	03/06/2002	Randy S. Uehran	DAKTRONICS	7679

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EXAMINER	
KANG, DONGHEE	
ART UNIT	PAPER NUMBER
2811	

DATE MAILED: 05/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/091,435	UEHRAN, RANDY S.	
	Examiner	Art Unit	
	Donghee Kang	2811	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) *7-10* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Newly submitted claims 7-10 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Claims 7-10 are directed to the patentably distinct species of the claimed invention.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 7-10 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ih (US 6,417,017) in view of Wang (US 6,710,373).

Re claims 2-3, Ih teaches a light emitting diode comprising (Fig.4):

An LED die having electrical connection leads connected thereto and extending therefrom; a molded body (A) of electrical insulating material encompassing the LED die and a portion of each of the electrical connection leads and thereby protecting the LED

die from the environment and insulating and supporting each of the electrical connection leads, said molded body having a length and a cylindrical shape terminating in an upper domed portion through which light emitted from the LED die emanates; an extended length portion (B) formed of electrical insulating material extending from the molded body and making longer the length of the molded body, the extended length portion encompassing an additional portion of each of the electrical connection leads and thereby further insulating and supporting each of the electrical connection leads, the extended length portion having a cylindrical shape matching the cylindrical shape of the molded body and a bottom which is planar in its entirety.

Ih does not explicitly teach the extended length of the light emitting diode insert into a printed circuit board. Wang teaches in Fig.9 the light emitting diode is inserted into the printed circuit board (30) with the entirely planar base bearing directly against and lying flush with the upper surface of the printed circuit board without the need for an interceding spacer. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the light emitting diode into the printed circuit board in order to provide an operation signal to the light emitting diode.

Re claim **4**, Ih teaches a light emitting diode comprising (Fig.4):

a LED die having electrical connection leads connected thereto and extending therefrom; a molded body (A) of electrical insulating material encompassing the LED die and a portion of each of the electrical connection leads and thereby protecting the LED die from the environment and insulating and supporting each of the electrical connection leads, said molded body having a base to an upper domed portion through which light

emitted from the LED die emanates for viewing; a molded body extension (B) formed of electrical insulating material, the molded body extension being separate from the molded body and having a length bounded by a lower surface which is planar in its entirety and an upper surface, the molded body extension having a cylindrical shape between the entirety planar lower surface and the upper surface which matches the cylindrical shape of the molded body, and the molded body extension further having individual holes for each of the electrical connection leads extending therethrough from the upper surface to the entirely planar lower surface, the molded body extension being fitted to the molded body with the individual holes receiving the electrical connection leads and with the upper surface abutting and being permanently affixed to the base of the molded body, the molded body extension thereby making longer the length of the molded body.

Ih does not explicitly teach the extended length of the light emitting diode insert into a printed circuit board. Wang in Fig.9 teaches the light emitting diode is inserted into the printed circuit board (30) with the entirely planar base bearing directly against and lying flush with the upper surface of the printed circuit board without the need for an interceding spacer. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the light emitting diode into the printed circuit board in order to provide an operation signal to the light emitting diode.

Re claim **5**, Ih teaches the base of the molded body and the upper surface of the molded body extension are both planar.

Re claim **6**, Ih as modified by Wang teaches the upper surface of the molded body extension is permanently affixed to the base of the molded body by adhesive.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donghee Kang whose telephone number is 571-272-1656. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C Lee can be reached on 571-272-1732. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Donghee Kang, Ph.D.
Primary Examiner
Art Unit 2811

dhk